

### **REMARKS**

Claim 5 is pending and amended. New claims 75-90 are added. Claims 5 and 75-90 will be pending in the instant application upon entry of this amendment.

The rejection is addressed below. All citations to paragraph numbers throughout this paper correspond to the application as published (US 2006/0257868).

Claim 5 is amended to delete part (e). This amendment does not add new matter.

New claims 75-82 depend from claim 5 and are limited to specific elements of the Markush group recited in claim 5. These claims are supported by the specification and therefore do not add new matter (*see, e.g.*, ¶¶ 8, 10, 60-63).

New claims 83-90 recite isolated nucleic acids corresponding to at least 14 nucleotides of SEQ ID NOs: 1 or 3. These claims are supported by the specification and therefore do not add new matter (*see, e.g.*, ¶¶ 7, 61).

### **Rejection Under 35 U.S.C. § 102(e)**

Claim 5 was rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. 6,787,309 ("Splawski"). Specifically, the Office Action asserts that bases 2338-2349 of Splawski's SEQ ID NO: 3 correspond to bases 463-474 of SEQ ID NO: 1 (Office Action at page 3). Applicants respectfully traverse this rejection with respect to amended claim 5.

Under 35 U.S.C. § 102, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Amended claim 5 is listed above. Applicants submit that Splawski does not contain each and every element of amended claim 5, and thus does not anticipate claim 5.

Bases 2338-2349 of Splawski are a twelve nucleotide sequence. The Office Action has not established that this twelve nucleotide sequence encodes a protein having CatSper3 activity in a cell capable of expressing CatSper3 activity as recited in claim 5. Therefore, Chang does not include every element of part (a) of claim 5.

Bases 463-474 of SEQ ID NO: 1 correspond to the codon for amino acids 155-158 of SEQ ID NO: 2. Amino acids 155-158 do not fall within the defined amino acid sequences for the extracellular loop or pore region domains of CatSper3 as defined in the specification (*see* ¶ 62). Therefore, Chang does not include every element of parts (c) or (d) of claim 5.

Claim 5 part (b) recites “*at least* a transmembrane domain of a CatSper3 protein” (emphasis added). Thus part (b) requires, *at a minimum*, that the claimed isolated nucleic acid encode a transmembrane domain of a CatSper3 protein, which is defined as “approximately residues 88-117, 128-152, 155-180, 217-242, 245-268 and 282-308 of SEQ ID NO: 2” (¶ 62). Although amino acids 463-474 (*i.e.*, bases 2338-2349 of Splawski) fall *within* residues 155-180, they do not comprise *at least* residues 155-180. Therefore, Splawski does not include every element of part (b) of claim 5.

Splawski does not disclose every element of amended claim 5, and thus cannot anticipate amended claim 5 or new claims 75-82. Splawski also does not disclose an isolated nucleic acid comprising at least 14, 15, 16, or 18 consecutive nucleotides of SEQ ID NO: 1, or that encode a portion of SEQ ID NO: 3, and thus cannot anticipate new claims 84-90.

Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection of claim 5 under 35 U.S.C. § 102.

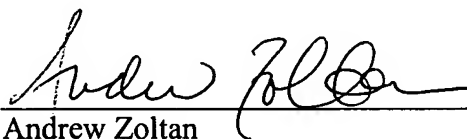
**CONCLUSION**

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

A request for a two month extension of time is submitted with this response. Applicants believe no fee additional fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0219, under Order No. 0110313.00138US2 from which the undersigned is authorized to draw.

Respectfully submitted,

Dated: August 19, 2010

A handwritten signature in dark ink, appearing to read "Andrew Zoltan", is written over a horizontal line.

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